

January 6, 2003

**RE:360networks-Union Center POP Site**

TO: Interested Parties / Applicant

FROM: Paul Dubenetzky  
Chief, Permits Branch  
Office of Air Quality

## Notice of Decision - Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office Environmental Adjudication, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We make Indiana a cleaner, healthier place to live.*

*Frank O'Bannon*  
Governor

*Lori F. Kaplan*  
Commissioner

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[www.state.in.us/idem](http://www.state.in.us/idem)

January 6, 2003

Mr. Dave Caldrea  
360networks - Union Center POP Site  
12202 Airport Way, Suite #300  
Broomfield, Colorado 80021

Re: Exempt Construction and Operation Status,  
127-16482-00099

Dear Mr. Caldrea:

The application from 360networks - Union Center POP Site, received on November 19, 2002, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following emission units, located at 347 North 625 West, Valparaiso, Indiana 46383, are classified as exempt from air pollution permit requirements:

- (a) One (1) diesel-fired emergency generator, identified as #01 and installed in 2002, with a maximum power output of 277 horse power (HP), operating less than 500 hours per year, and exhausting to the atmosphere.
- (b) One (1) diesel storage tank, installed in 2002, with a maximum capacity of 300 gallons.

The following conditions shall be applicable:

1. Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following:
  - (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
  - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.
2. Pursuant to 326 IAC 8-9 (Volatile Organic Liquid Storage Vessels), the diesel storage tank is subject to the reporting and record keeping provisions of 326 IAC 8-9-6(a) and (b), which have the following requirements:
  - (a) The owner or operator shall maintain records for the life of the vessel for the following information:
    - (1) The vessel identification number.
    - (2) The vessel dimensions.
    - (3) The vessel capacity.
  - (b) A report containing the information described in (a) shall be submitted to IDEM, OAQ.



This exemption is the first air approval issued to this source.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Pursuant to Contract No. A305-0-00-36, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Yu-Lien Chu, ERG, 1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (919) 468-7871 to speak directly to Ms. Chu. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, press 0 and ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

Sincerely,

Original Signed by Paul Dubenetzky  
Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Quality

ERG/YC

cc: File - Porter County  
Porter County Health Department  
Air Compliance - Dave Sampias  
Northwest Regional Office  
Permit Tracking - Sara Cloe  
Technical Support and Modeling - Michele Boner  
Compliance Branch - Karen Nowak

## **Indiana Department of Environmental Management Office of Air Quality**

### **Technical Support Document (TSD) for an Exemption**

#### **Source Background and Description**

Source Name:	360networks - Union Center POP Site
Source Location:	347 North 625 West, Valparaiso, Indiana 46383
County:	Porter
SIC Code:	1731
Exemption Permit No.:	127-16482-00099
Permit Reviewer:	ERG/YC

The Office of Air Quality (OAQ) has reviewed an application from 360networks - Union Center POP Site relating to the construction and operation of a diesel-fired emergency generator and a diesel storage tank.

#### **History**

This source is a network signal amplification facility that receives, amplifies, and distributes fiber optic signals, along a fiber optic network. 360networks purchased this site from Enron in October, 2002. On November 19, 2002, 360networks submitted an application to the IDEM, OAQ requesting to install and operate a 277 HP diesel-fired emergency generator and a 300 gallons diesel storage tank. There were no air emission units existing at this site and no air approval has been previously issued to this source.

#### **Permitted Emission Units and Pollution Control Equipment**

There are no permitted emission units and pollution control devices at this source.

#### **Unpermitted Emission Units and Pollution Control Equipment**

There are no unpermitted facilities operating at this source during this review process.

#### **New Emission Units and Pollution Control Equipment Receiving Prior Approval**

The application includes information relating to the construction and operation of the following equipment:

- (a) One (1) diesel-fired emergency generator, identified as #01 and installed in 2002, with a maximum power output of 277 horse power (HP), operating less than 500 hours per year, and exhausting to the atmosphere.
- (b) One (1) diesel storage tank, installed in 2002, with a maximum capacity of 300 gallons.

#### **Existing Approvals**

This exemption is the first air approval issued to this source.

## Enforcement Issue

There are no enforcement actions pending.

## Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on November 19, 2002, with additional information received on December 19, 2002.

## Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A, page 1).

## Potential To Emit of Source Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	0.15
PM-10	0.15
SO <sub>2</sub>	0.14
VOC	Less than 1.0
CO	0.46
NO <sub>x</sub>	2.15

  

HAP's	Potential To Emit (tons/year)
TOTAL	Negligible

Note: This is the PTE for the new emergency generator and the new fuel storage tank. There were no air emissions from the existing source. The PTE for the emergency generator was calculated at a maximum of 500 hours of operation per twelve (12) consecutive month period.

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of VOC is less than 25 tons per year and the potential to emit all other criteria pollutants is less than 100 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is less than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-1.1-1(16)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

- (c) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of criteria pollutants is less than 25 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-6.1.
- (d) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of pollutants is less than the levels listed in 326 IAC 2-5.5-1(b), therefore the source is not subject to the provisions of 326 IAC 2-5.5.1.
- (e) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of pollutants is less than the levels listed in 326 IAC 2-1.1-3(d)(1), therefore, the source is subject to the provisions of 326 IAC 2-1.1-3.
- (f) **Fugitive Emissions**  
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

### County Attainment Status

The source is located in Porter County.

Pollutant	Status
PM-10	Attainment
SO <sub>2</sub>	Attainment
NO <sub>2</sub>	Attainment
Ozone	Severe Nonattainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. The portion of Porter County in which this source is located has been designated as severe nonattainment for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (b) Porter County has been classified as attainment for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) **Fugitive Emissions**  
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2, 40 CFR 52.21, and 326 IAC 2-3, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

### Source Status

Existing Source PSD and Emission Offset Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	0.15
PM10	0.15
SO <sub>2</sub>	0.14

Pollutant	Emissions (ton/yr)
VOC	Less than 1.0
CO	0.46
NO <sub>x</sub>	2.15

- (a) This existing source is not a major stationary source because VOC is emitted at a rate of less than 25 tons per year. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.
- (b) This existing source is not a PSD major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

### Part 70 Permit Determination

#### 326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this exemption 127-16482-00099, is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) VOC is less than 25 tons per year (this source is located in Porter County),
- (b) All other criteria pollutants are less than 100 tons per year,
- (c) A single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (d) Any combination of HAPs is less than 25 tons/year.

This is the first air approval issued to this source.

### Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) The diesel storage tank has a capacity less than 40 cubic meters (10,560 gallons). Therefore, the New Source Performance Standards for Volatile Organic Liquid Storage Vessels for which construction, reconstruction, or modification commenced after July 23, 1984 (40 CFR 60.110b - 117b, Subpart Kb) are not applicable to this tank.
- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

### State Rule Applicability - Entire Source

#### 326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

This source was constructed in 2002 and is not in 1 of the 28 source categories defined in 326 IAC 2-2-1(p)(1). The potential to emit of each of the attainment pollutants (PM, PM<sub>10</sub>, SO<sub>2</sub>, CO, and NO<sub>x</sub>) before control is less than two hundred and fifty (250) tons per year. Therefore, the requirements of 326 IAC 2-2 are not applicable.

#### 326 IAC 2-3 (Emission Offset)

This source is located in Porter County (severe nonattainment area for Ozone) and has potential to emit VOC less than 25 tons/yr. Therefore, the requirements of 326 IAC 2-3 are not applicable.

**326 IAC 2-4.1 (New Sources of Hazardous Air Pollutants)**

The source was constructed after July 27, 1997. However, the potential to emit HAPs from the entire source is less than the major source thresholds. Therefore, the requirements of 326 IAC 2-4.1 are not applicable.

**326 IAC 2-6 (Emission Reporting)**

This source is located in Porter County and the potential to emit VOC is less than ten (10) tons per year. Therefore, 326 IAC 2-6 does not apply.

**326 IAC 5-1 (Opacity Limitations)**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**State Rule Applicability - Emergency Generator**

**326 IAC 9-1-2 (Carbon Monoxide Emission Requirements)**

This source is not among the listed source categories in 326 IAC 9-1-2. Therefore, the requirements of 326 IAC 9-1-2 are not applicable.

**326 IAC 10-1-3 (Nitrogen Oxide Emission Requirements)**

This source is not located in Clark or Floyd County. Therefore, the requirements of 326 IAC 10-1-3 are not applicable.

**State Rule Applicability - Diesel Storage Tank**

**326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)**

This source is located in Porter County, therefore, the diesel fuel storage tank at this source is subject to 326 IAC 8-9. Since this tank has a capacity less than 39,000 gallons, this fuel tank is subject to the reporting and record keeping provisions of 326 IAC 8-9-6(a) and (b), which have the following requirements:

- (a) The owner or operator shall maintain records for the life of the vessel for the following information:
  - (1) The vessel identification number.
  - (2) The vessel dimensions.
  - (3) The vessel capacity.
- (b) A report containing the information described in (a) shall be submitted to IDEM, OAQ.

**326 IAC 8-4-3 (Petroleum Liquid Storage Facilities)**

The fuel tank at this source has a capacity less than 39,000 gallons. Therefore, the requirements of 326 IAC 8-4-3 are not applicable to this tank.



## **Conclusion**

The construction and operation of this exemption shall be subject to the conditions of the attached proposed Exemption 127-16482-00099.

## Appendix A: Emission Calculations Internal Combustion Engines

### From the Diesel Emergency Generator (#01)

**Company Name: 360networks - Union Center POP Site**  
**Address City IN Zip: 347 N. 625 W, Valparaiso, IN 46383**  
**Exemption #: 127-16482-00099**  
**Reviewer: ERG/YC**  
**Date: December 19, 2002**

Power Output  
Horse Power

Operation Limit  
hr/yr

277.0

500

Emission Factor in lb/HP-hr	Pollutant					
	PM*	PM10*	SO2	NO <sub>x</sub>	**VOC	CO
	2.20E-03	2.20E-03	2.05E-03	3.10E-02	2.47E-03	6.68E-03
<b>Potential Emission in tons/yr</b>	<b>0.15</b>	<b>0.15</b>	<b>0.14</b>	<b>2.15</b>	<b>0.17</b>	<b>0.46</b>

\*Assume PM10 emission equals to PM emissions.

\*\* Assume TOC (total organic compounds) emissions equal to VOC emissions.

Note: As defined in the September 6, 1995 memorandum from John S. Seitz of US EPA on the subject of "Calculating Potential to Emit for Emergency Generators", an emergency generator's sole function is to provide back-up power when power from the local utility is interrupted. The only circumstances under which an emergency generator would operate when utility power is available are during operator training or brief maintenance checks. The generator's potential to emit is based on an operating time of 500 hours per year as set forth in the EPA memo.

### Methodology

All Emission factors are based on normal firing.

Emission Factors from AP-42, Chapter 3.3, Table 3.3-1, SCC #2-02-001-02 and 2-03-001-01.(AP-42 Supplement B 10/96)

Emission (tons/yr) = Power Output (HP) x Emission Factor (lb/HP-hr) x Operation Limit (hr/yr) x 1 lb/2,000 ton